

# Xiaobin Peng

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/7929019/xiaobin-peng-publications-by-year.pdf>

**Version:** 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

49  
papers

3,241  
citations

28  
h-index

50  
g-index

50  
ext. papers

3,583  
ext. citations

11.9  
avg, IF

5.1  
L-index

#	Paper	IF	Citations
49	Porphyrin-Based All-Small-Molecule Organic Solar Cells With Absorption-Complementary Nonfullerene Acceptor. <i>IEEE Journal of Photovoltaics</i> , <b>2021</b> , 1-6	3.7	1
48	Morphology Evolution Induced by Sequential Annealing Enabling Enhanced Efficiency in All-Small Molecule Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2021</b> , 4, 4234-4241	6.1	4
47	Porphyrin Acceptors with Two Perylene Diimide Dimers for Organic Solar Cells. <i>ChemSusChem</i> , <b>2021</b> , 14, 3614-3621	8.3	1
46	Highly Efficient Ternary Solar Cells with Efficient Förster Resonance Energy Transfer for Simultaneously Enhanced Photovoltaic Parameters. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2105304	15.6	7
45	Molecular engineering of narrow bandgap porphyrin derivatives for highly efficient photothermal conversion. <i>Dyes and Pigments</i> , <b>2021</b> , 192, 109460	4.6	2
44	Low-Bandgap Porphyrins for Highly Efficient Organic Solar Cells: Materials, Morphology, and Applications. <i>Advanced Materials</i> , <b>2020</b> , 32, e1906129	24	78
43	Influence of the CN substitution position on the performance of dicyanodistyrylbenzene-based polymer solar cells. <i>Polymer Chemistry</i> , <b>2020</b> , 11, 1653-1662	4.9	2
42	All-porphyrin organic solar cells. <i>Dyes and Pigments</i> , <b>2020</b> , 180, 108503	4.6	10
41	A-BA-BA small molecules for ternary solar cells. <i>Dyes and Pigments</i> , <b>2019</b> , 164, 148-155	4.6	8
40	Cathode interlayer-free organic solar cells with enhanced device performance upon alcohol treatment. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 7947-7952	7.1	10
39	Over 12% Efficiency Nonfullerene All-Small-Molecule Organic Solar Cells with Sequentially Evolved Multilength Scale Morphologies. <i>Advanced Materials</i> , <b>2019</b> , 31, e1807842	24	228
38	Improving the efficiencies of small molecule solar cells by solvent vapor annealing to enhance J-aggregation. <i>Journal of Materials Chemistry C</i> , <b>2019</b> , 7, 9618-9624	7.1	9
37	Selective Adsorption of C in the Supramolecular Nanopatterns of Donor-Acceptor Porphyrin Derivatives. <i>Langmuir</i> , <b>2019</b> , 35, 14511-14516	4	5
36	High-detectivity panchromatic photodetectors for the near infrared region based on a dimeric porphyrin small molecule. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 3341-3345	7.1	24
35	Origin of Reduced Open-Circuit Voltage in Highly Efficient Small-Molecule-Based Solar Cells upon Solvent Vapor Annealing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 8141-8147	9.5	21
34	Conjugated ionic porphyrins as the cathode interlayer materials in organic solar cells. <i>Organic Electronics</i> , <b>2018</b> , 62, 107-113	3.5	6
33	A low-bandgap dimeric porphyrin molecule for 10% efficiency solar cells with small photon energy loss. <i>Journal of Materials Chemistry A</i> , <b>2018</b> , 6, 18469-18478	13	29

32	Dimeric Porphyrin Small Molecules for Efficient Organic Solar Cells with High Photoelectron Response in the Near-Infrared Region. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 668-675	9.5	25
31	Multiple Roles of a Non-fullerene Acceptor Contribute Synergistically for High-Efficiency Ternary Organic Photovoltaics. <i>Joule</i> , <b>2018</b> , 2, 2154-2166	27.8	66
30	Unravelling the Self-Assembly of Diketopyrrolopyrrole-Based Photovoltaic Molecules. <i>Langmuir</i> , <b>2018</b> , 34, 11952-11959	4	3
29	Facile integration of low-cost black phosphorus in solution-processed organic solar cells with improved fill factor and device efficiency. <i>Nano Energy</i> , <b>2018</b> , 53, 345-353	17.1	29
28	Alcohol soluble porphyrin for the cathode buffer layers of fullerene/perovskite planar heterojunction solar cells. <i>Organic Electronics</i> , <b>2018</b> , 59, 414-418	3.5	5
27	Modifying the Chemical Structure of a Porphyrin Small Molecule with Benzothiophene Groups for the Reproducible Fabrication of High Performance Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 7131-7138	9.5	51
26	Conjugated D-A porphyrin dimers for solution-processed bulk-heterojunction organic solar cells. <i>Chemical Communications</i> , <b>2017</b> , 53, 5113-5116	5.8	26
25	Solution-processed organic tandem solar cells with power conversion efficiencies >12%. <i>Nature Photonics</i> , <b>2017</b> , 11, 85-90	33.9	458
24	Small-Molecule Solar Cells with Simultaneously Enhanced Short-Circuit Current and Fill Factor to Achieve 11% Efficiency. <i>Advanced Materials</i> , <b>2017</b> , 29, 1700616	24	79
23	Doping porphyrin-based bulk heterojunction solar cells with LITFSI and TFSA. <i>Journal of Materials Chemistry C</i> , <b>2017</b> , 5, 11573-11578	7.1	2
22	Ternary Solar Cells Based on Two Small Molecule Donors with Same Conjugated Backbone: The Role of Good Miscibility and Hole Relay Process. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 29917-29923	8.5	38
21	A visible-near-infrared absorbing A <sub>2</sub> B <sub>2</sub> type dimeric-porphyrin donor for high-performance organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2017</b> , 5, 25460-25468	13	35
20	Highly Efficient Porphyrin-Based OPV/Perovskite Hybrid Solar Cells with Extended Photoresponse and High Fill Factor. <i>Advanced Materials</i> , <b>2017</b> , 29, 1703980	24	148
19	11% Efficient Ternary Organic Solar Cells with High Composition Tolerance via Integrated Near-IR Sensitization and Interface Engineering. <i>Advanced Materials</i> , <b>2016</b> , 28, 8184-8190	24	227
18	New Terthiophene-Conjugated Porphyrin Donors for Highly Efficient Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 30176-30183	9.5	53
17	New insight of molecular interaction, crystallization and phase separation in higher performance small molecular solar cells via solvent vapor annealing. <i>Nano Energy</i> , <b>2016</b> , 30, 639-648	17.1	58
16	Solution-processed bulk heterojunction solar cells based on porphyrin small molecules with very low energy losses comparable to perovskite solar cells and high quantum efficiencies. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 3843-3850	7.1	34
15	Structural engineering of porphyrin-based small molecules as donors for efficient organic solar cells. <i>Chemical Science</i> , <b>2016</b> , 7, 4301-4307	9.4	69

14	A complementary absorption small molecule for efficient ternary organic solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 5288-5293	13	52
13	Porphyrin small molecules containing furan- and selenophene-substituted diketopyrrolopyrrole for bulk heterojunction organic solar cells. <i>Organic Electronics</i> , <b>2016</b> , 29, 127-134	3.5	34
12	High-Performance Polymer Tandem Solar Cells Employing a New n-Type Conjugated Polymer as an Interconnecting Layer. <i>Advanced Materials</i> , <b>2016</b> , 28, 4817-23	24	137
11	Multi-Length-Scale Morphologies Driven by Mixed Additives in Porphyrin-Based Organic Photovoltaics. <i>Advanced Materials</i> , <b>2016</b> , 28, 4727-33	24	219
10	A water/alcohol-soluble conjugated porphyrin small molecule as a cathode interfacial layer for efficient organic photovoltaics. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 15156-15161	13	29
9	Doping ZnO with Water/Alcohol-Soluble Small Molecules as Electron Transport Layers for Inverted Polymer Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 28225-28230	9.5	28
8	Highly efficient small molecule solar cells fabricated with non-halogenated solvents. <i>RSC Advances</i> , <b>2015</b> , 5, 92312-92317	3.7	12
7	High-Efficiency Small Molecule-Based Bulk-Heterojunction Solar Cells Enhanced by Additive Annealing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 21495-502	9.5	35
6	A-D-A Type Small Molecules Based on Boron Dipyrromethene for Solution-Processed Organic Solar Cells. <i>Chemistry - an Asian Journal</i> , <b>2015</b> , 10, 1513-8	4.5	39
5	Deep absorbing porphyrin small molecule for high-performance organic solar cells with very low energy losses. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 7282-5	16.4	396
4	Solution-processed bulk heterojunction solar cells based on a porphyrin small molecule with 7% power conversion efficiency. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 1397-1401	35.4	184
3	Highly responsive organic near-infrared photodetectors based on a porphyrin small molecule. <i>Journal of Materials Chemistry C</i> , <b>2014</b> , 2, 1372	7.1	59
2	Enhanced performance of solution-processed solar cells based on porphyrin small molecules with a diketopyrrolopyrrole acceptor unit and a pyridine additive. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 2144-2150	13	90
1	Solution processed small molecule bulk heterojunction organic photovoltaics based on a conjugated donor-acceptor porphyrin. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 21841		75